SCALP—Growing Capabiliti

SCALP stands for scenario-determined, computer-assisted logistics planning. It is a microcomputer-based logistics planning tool developed at the Army Logistics Center, Fort Lee, Virginia. It estimates supply requirements for a task-organized force at the brigade and division levels. Initially developed for rapid-deployment planning, SCALP can also help in exercise planning and in "what-if" analyses of contingency plans.

Since the SCALP project began in December 1983, its mission has remained basically the same—

- First, to orient Army units and organizations to the tremendous potential of microcomputer applications using spreadsheet and template techniques.
- Second, to establish a microcomputer applications center where users can get hands-on training in developing SCALP and other logistics-application templates.
- Third, to promote the templating techniques as a low-cost, high-yield method of increasing unit productivity.

In June 1984, the 82d Airborne Division became the first unit to test the SCALP program. In June 1987, members of the Logistics Center's SCALP team visited the G4 office of the 82d to review the table of organization and equipment changes and requested programming enhancements that had evolved from their use of the program. The team wanted to determine the G4's present usage level of SCALP, to compare the version of SCALP on the G4's microcomputer to the SCALP team's version, and to discuss additional capabilities that the G4 requested. The 82d G4 plans and operations office currently uses SCALP weekly to determine ammunition weight and cube requirements for task forces.

The original SCALP program excited and interested many users, who immediately wanted some of its features within their own unit. Consequently, the "logistics-manager" series of templates was developed to automate many of the recurring tasks the G4 and S4 perform. The selected tasks were from a virtually unlimited field of candidates for automation.

The logistics-manager templates free the G4 and S4 staffs for other jobs by taking over many of the routine, time-consuming management tasks. They make the lives of the G4 and S4 a little easier, while actually improving the work flow and effectiveness of the offices.

Some of the templates in the logistics-manager series are—

- Convoy planner, which allows the convoy planner to select vehicles for convoys and plan route times, distances, rest stops, check points,

Personal computers, coupled with SCALP software, are making logistics planning easier and more efficient.

gaps, and other details.

- Issue tracker, which keeps track of unit issues or issue problems by priority, date, or issue.
- Petroleum, oils, and lubricants (POL) projections, which assist the logistics planner at division, brigade, or battalion level to project POL requirements and costs.
- Ammunition tracker, which reports the status of and tracks the usage of up to 100 types of ammunition for a unit.
- Class I planning, which determines subsistence requirements for deploying troops, depending on climate and area.
- Supply and service locator, which allows users to find the name, address, and phone number for the suppliers of various classes of supplies and services available in a city.

These templates are stand-alone programs that can be used at any organizational level.

We recently expanded the program for determining ammunition requirements to include all standard requirement codes (SRC's) in the five major divisions, plus those SRC's that compose a typical corps slice. This program provides more detailed operational planning factors than those found in FM 101-10-1, Staff Officer's Field Manual—Organizational, Technical, and Logistics Data.

The SCALP team's current objectives are to continue developing and fielding automated logistics planning tools, using off-the-shelf software such as spreadsheets and data base management systems; conducting one-on-one training for representatives from using organizations so they, in turn, can train personnel within their units; and informing Army personnel by presenting short blocks of instruction in service schools on the potential use of PC-based software templates.

To successfully meet these objectives and satisfy the numerous unit requests for SCALP programs, the team assigns priorities to user requests. First priority goes to brigade- or division-level units needing rapid deployment or contingency unit planning programs. Second priority is given to unit exercise planning. Third priority is given to follow-on operational planning needs.

Since SCALP requires a considerable resource investment for development and maintenance and because numerous units request SCALP products, the Logistics Center is using contractor assistance from Computer Data Systems, Incorporated. Provisions of the contract include servicing the backlog of requests for tailored SCALP programs as well as the design, development, and implementation of a SCALP product to provide Army units an in-house template development capability.

The future of SCALP and the logistics-manager series includes using artificial-intelligence (AI) technology to further facilitate logistics planning. AI technology has the potential to add to SCALP a user-friendly training capability. This capability will allow the user to analyze operational planning options before using the number-crunching SCALP programs. It will, on request, tell why each SCALP input is needed. It will also explain how the SCALP program arrived at a particular answer.

The Army, and especially the Logistics Center, has undergone a revolution in microcomputer technology transfer. SCALP is a pioneering effort to help the Army enter the computer information age. The use of microcomputers and spreadsheet, data base, and AI software is a reality for the Army. Automation has progressed to such an extent that almost every soldier has access to a microcomputer to help him perform everyday planning tasks.

SCALP is an ideal way for division logisticians to determine deployment requirements. The logistics-manager templates are stand-alone programs that anyone can use to compute operational ammunition resupply requirements and to perform other logistics-management tasks. Armed with these powerful tools, the soldier of the future will have better control of the battlefield environment. ALOG

William O. Hedgepeth is chief of the Technical Design and Validation Branch, Operations Analysis Directorate, Army Logistics Center, Fort Lee, Virginia. He is responsible for developing and managing SCALP microcomputer applications. He holds a master's degree in nuclear science and engineering.

Captain Martina R. DeVries, a Quartermaster Corps officer, is project officer for the SCALP program. Her responsibilities include designing, programming, testing, and fielding logistics-management templates and SCALP programs.